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Author(s): Mockler, Theodore
Fleming, Ian John

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(U) TTMA Shaped Charge Assessment: TOW 2A

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Los Alamos National Laboratory

Los Alamos NM, 87545

Prepared by:

Ted Mockler and Ian Fleming

XTD-SS

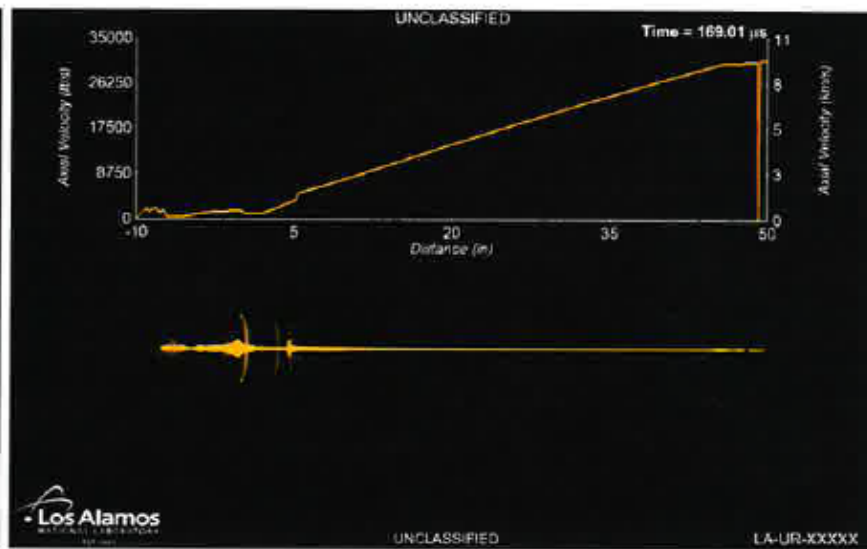
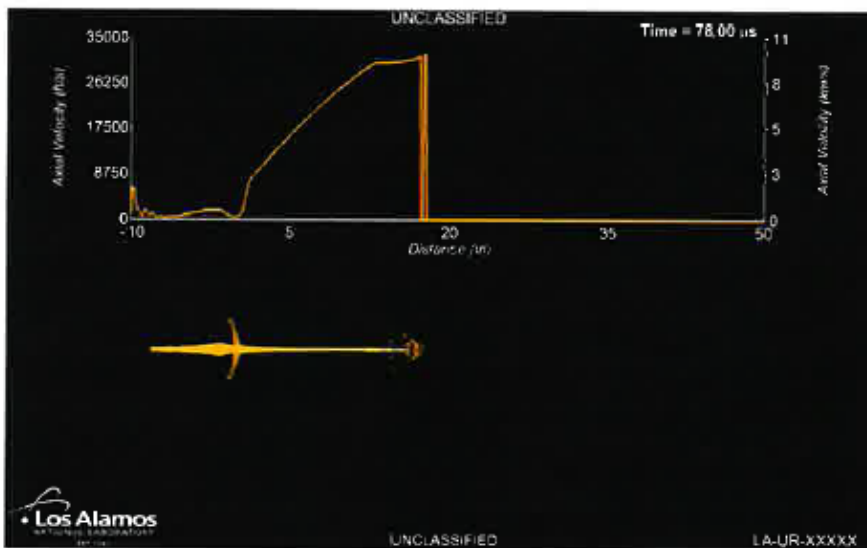
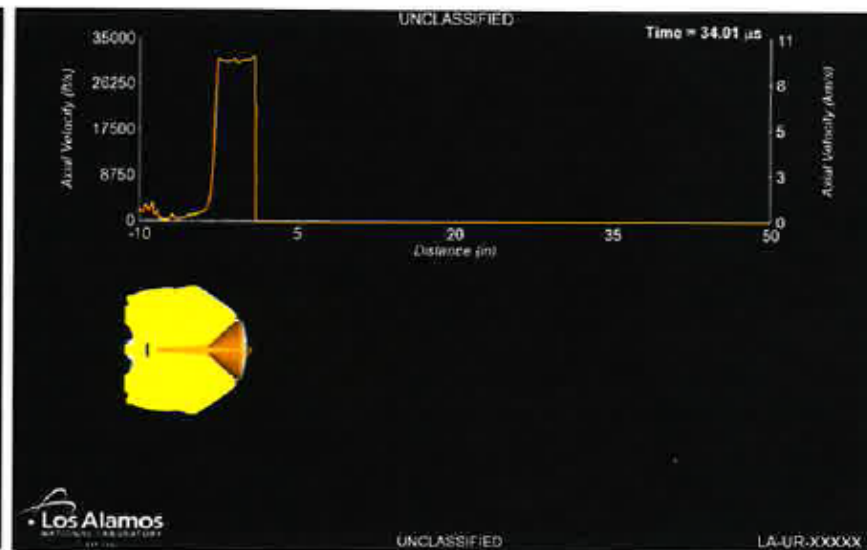
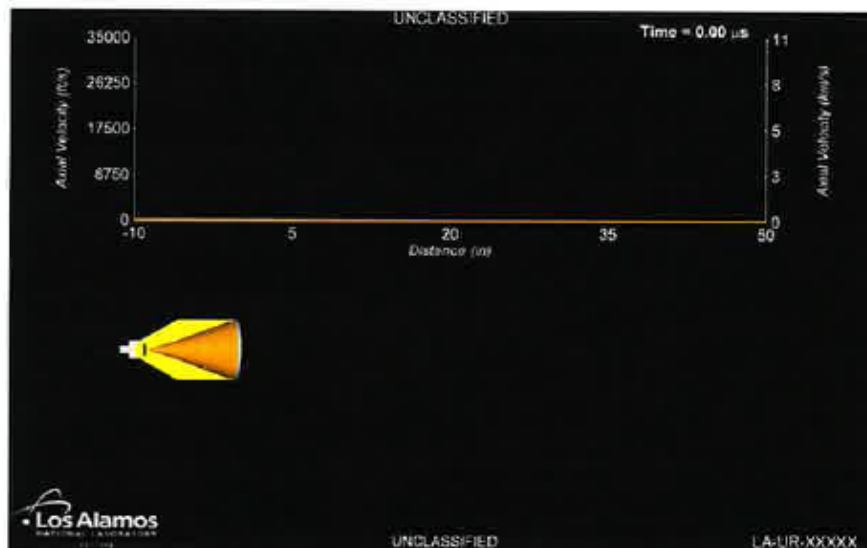
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ABSTRACT

A summary of a Shaped Charge Assessment (SCA) of the TOW 2A shaped charge is shown here, modeled with the LANL PAGOSA hydrocode. Early, mid, and late time images show the jet formation and velocity.

SUMMARY

A summary of the LANL SCA of the TOW 2A shaped charge is shown here, modeled with the LANL PAGOSA hydrocode. Five images captured from the PAGOSA simulation show the jet formation and propagation from Time=0 (when the detonator is fired) to Time=174 μs with the jet stretching past 50 inches (127 cm). The jet tip location is within 3 mm of the jet tip observed in test radiographs. The model jet tip velocity of 0.95 cm/ μs compares well with 10 Sandia National Laboratory (SNL) tests, and four Lawrence Livermore National Laboratory tests. The SNL ten shot test series had a jet tip velocity ranging from 0.91 to 0.96 cm/ μs , with an average tip velocity of 0.93 cm/ μs . The LANL model is in excellent agreement with test data, and is ready to be used with confidence in subsequent simulations.



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Time = 174.00 μ s

